

For discussion on
(date to be confirmed)

PWSC(2015-16)30

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT
Civil Engineering – Land Development
763CL – Integrated Basement for West Kowloon Cultural District

Members are invited to recommend to the Finance
Committee –

- (a) the upgrading of part of **763CL**, entitled “Integrated Basement for West Kowloon Cultural District – first and second stages of design, site investigation and construction works”, to Category A at an estimated cost of \$2,919.5 million in money-of-the-day prices; and
- (b) the retention of the remainder of **763CL** in Category B.

PROBLEM

We need to transfer the costs associated with the first stage of design and advance works of the integrated basement to West Kowloon Cultural District Authority (WKCDA) in recognition of the works it has undertaken. We also need to carry out the second stage of design, site investigation and construction works of the integrated basement to dovetail the phased implementation of the West Kowloon Cultural District (WKCD) and support its early phases of development especially the commissioning of the M+ and Lyric Theatre Complex.

/ **PROPOSAL**

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Home Affairs, proposes to upgrade part of **763CL** to Category A, at an estimated cost of \$2,919.5 million in money-of-the-day (MOD) prices, for implementing the first and second stages of design, site investigation and construction works of the integrated basement in WKCD.

PROJECT SCOPE AND NATURE

3. The part of **763CL** which we propose to upgrade to Category A as the first and second stages of works comprises –

- (a) first stage of design and advance works of the integrated basement, covering the following major items –
 - (i) construction of the foundations for both an underground road and the protection works for the existing Airport Express tunnels (AET) in Zone 3A of the integrated basement, necessary environmental mitigation measures, and related monitoring and auditing works; and
 - (ii) design of essential basement structure¹ and associated works for Zone 3B of the integrated basement including preparation of tender documents and assessment of tenders for the construction works.
- (b) second stage of design, site investigation and construction works of the integrated basement, covering the following major items –

/ (i)

¹ Essential basement structure generally includes structural elements of the integrated basement such as walls, floor and ceiling slabs, columns and beams, as well as other associated works.

- (i) construction of an underground road of about 140 metres (m) long in Zone 3A of the integrated basement, associated ancillary works including footpaths, pick-up/drop-off area, electrical and mechanical works, plant rooms, means of escape/means of access for firefighting and rescue, and essential enabling works for the remaining section of the underground road in Zone 3A² of the integrated basement;
- (ii) protection works for the existing AET³ in Zone 3A;
- (iii) construction of the foundations⁴ for Zone 3B of the integrated basement including those for the protection works for the existing AET;
- (iv) design and site investigation of essential basement structure and associated works for Zone 2A of the integrated basement, including preparation of tender documents and assessment of tenders for the construction works;
- (v) preliminary design and site investigation of essential basement structures and associated works for Zones 2B and 2C of the integrated basement; and
- (vi) necessary environmental mitigation measures, and related monitoring and auditing works for construction and site investigation works in sub-paragraphs (i) to (v) above.

—— Site plans showing the first and second stages of works are at Enclosure 1.

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² Essential enabling works in Zone 3A mainly cover the essential basement structure to enable the construction of the remaining section of underground road and associated ancillary works in Zone 3A.

³ Protection works for the existing AET mainly cover structural elements spanning over the tunnels to avoid imposition of extra loads from the integrated basement and topside developments on the tunnels.

⁴ The foundations are to support the integrated basement and topside developments in Zone 3B.

4. Subject to approval of the Finance Committee (FC) within the current legislative session, the Government will transfer the costs associated with the first stage of design and advance works for the integrated basement to the WKCDA, and commence the second stage of works by the fourth quarter of 2015 for substantial completion in the first quarter of 2019.

5. We will retain the remainder of **763CL** in Category B. The scope of the remainder mainly comprises –

- (a) construction of the remaining section of underground road and associated works in Zone 3A;
- (b) remaining foundation works and main works including underground road, AET protection works and essential basement structures in Zone 3B;
- (c) construction of underground road and essential basement structure in Zone 2A; and
- (d) detailed design, site investigation and construction of essential basement structure and construction of underground road in Zone 2B.

JUSTIFICATION

Latest Implementation Programme of WKCD

6. Members of the Legislative Council Joint Subcommittee to Monitor the Implementation of the WKCD Project (Joint Subcommittee) were previously informed that WKCDA would, in view of its latest financial situation, adopt a pragmatic approach to implement the WKCD project in a timely and cost-effective manner with its facilities to be delivered in batches. The construction of the Batches 1 and 2 of WKCDA's facilities includes among others, the Park (with Arts Pavilion), Freespace (Black Box and Outdoor Stage), Xiqu Centre, M+ and Lyric Theatre Complex are targeted for completion in stages between the second half of 2015⁵ and end 2020.

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⁵ The temporary tree nursery park will be completed in the second half of 2015.

7. The integrated basement is an integral component of the Foster + Partners' Conceptual Plan forming the basis for the Development Plan for WKCD. It is also an essential feature to meet the statutory minimum requirement of providing 23 hectares of public open space in WKCD as specified in the South West Kowloon Outline Zoning Plan. This design enables traffic to be put underground thereby freeing up the site for cultural use and public enjoyment. It also enhances the walking environment at-grade. Acknowledging that the integrated basement was not envisaged when the upfront endowment⁶ was granted to WKCDA in 2008, the Government announced in June 2013 that it would fully fund the capital works of the main integrated basement as general enabling works to facilitate the development of the WKCD project, subject to FC's funding approval. This would allow WKCDA to focus on delivering the arts and cultural facilities. At the Joint Subcommittee meeting held on 28 May 2014, Members were informed of the pragmatic approach adopted to implement the integrated basement in phases⁷.

8. The area around the Artist Square, which includes M+, Lyric Theatre Complex and some hotel/office/residential (HOR) sites on top of the integrated basement at Zones 3A and 3B (referred to as the Artist Square Development Area (ASDA)) presents a good opportunity for early development into a "mini-WKCD". The ASDA, with target completion date by around 2020, will form a precinct supported by a balanced mix of land uses including core arts and cultural facilities (CACF), office and residential developments, other arts and cultural facilities (OACF) and retail/dining/entertainment (RDE) facilities. The public spaces in ASDA, including the interfacing area with the Park, open space at the Artist Square and the waterfront promenade, will be developed to create a sense of place for the general public and to bring vibrancy to the area.

/ 9.

⁶ In July 2008, FC approved a one-off upfront endowment of \$21.6 billion in MOD prices for the WKCD Authority to implement the WKCD development covering arts and cultural facilities, retail/dining/entertainment facilities, public open space and certain transport facilities.

⁷ Subject to the apportionment of the integrated basement cost between the Government and private developers which would correspond approximately to the ratio of WKCDA and Government's facilities (including public infrastructure works) to HOR developments in terms of floor areas.

9. Zone 2A of the integrated basement will be developed with the topside developments, including the Centre for Contemporary Performance (CCP), some OACF and HOR sites to be delivered in stages following completion of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) project. Zone 2B of the integrated basement is planned to be developed by prospective developer(s) of the HOR sites on the topside. The implementation of Zone 2C of the integrated basement, as well as the topside developments including the CACF (viz. Batch 3 facilities) and HOR sites, will be reviewed at a suitable juncture.

First stage of design and advance works of the Integrated Basement

10. We submitted the funding application for the first stage of design and advance works of the integrated basement in relation to Zone 3A and Zone 3B under **763CL** at an estimated cost of \$304.5 million in MOD prices (viz. scope of works detailed at paragraph 3 (a) above) to the Public Works Subcommittee (PWSC) in June 2014 for examination. Nonetheless, the funding application was yet to be examined by PWSC by the end of 2014. As the significant delay in obtaining FC's approval for the funding proposal had serious knock-on effects on the construction costs and development programmes of the M+ and Lyric Theatre Complex, the WKCDA Board had, as an exceptional and one-off arrangement, agreed to charge the costs of the works concerned to its endowment fund. Accordingly, the Government withdrew the funding application (vide PWSC(2014-15)37) on 5 January 2015.

11. At the Joint Subcommittee meeting held on 12 January 2015, Members were updated on the progress of implementation of the integrated basement for WKCD and the timeline for the relevant funding applications. The updated timeline is at Enclosure 2. Members were also informed of the alternative funding arrangement adopted by WKCDA for the first stage of design and advance works of the integrated basement as mentioned in paragraph 10 above, and that when submitting its next funding application in mid-2015, the Government planned to seek FC's approval for transferring the costs associated with the first stage of works to WKCDA, in recognition of the works undertaken on behalf of the Government.

/ Second

Second stage of design, site investigation and construction works of the Integrated Basement

Construction works for Zone 3A

12. The WKCDA targets to commence the main construction works of the M+ in the third quarter of 2015 for completion by 2018. To tie in with the construction programme of M+, it is necessary to implement in parallel with the proposed works as mentioned in paragraphs 3(b)(i) and 3(b)(ii) above which are highly integrated with the M+ structure. These works include the construction of the underground road in Zone 3A of the integrated basement and associated ancillary works including footpaths, pick-up/drop-off area, electrical and mechanical works, plant rooms, means of escape/means of access for firefighting and rescue, and essential enabling works for the remaining section of the underground road in Zone 3A⁸. These works also include the protection works for the existing AET in Zone 3A.

Foundation works for Zone 3B

13. The Lyric Theatre Complex undertaken by the WKCDA is highly integrated with Zone 3B of the integrated basement. To meet the target completion date of the Lyric Theatre Complex by end 2020, it is necessary to commence in the fourth quarter of 2015 the proposed foundation works in Zone 3B of the integrated basement, in order to allow adequate lead time for the construction of both the main works for Zone 3B of the integrated basement and the Lyric Theatre Complex.

Design and site investigation for Zones 2A, 2B and 2C

14. To align with the latest phased implementation plan of the WKCD facilities and facilitate early disposal of the HOR sites, the main integrated basement in Zones 2A to 2C will be implemented in phases as follows –

/ Zone

⁸ The remaining section of the underground road in Zone 3A is planned for construction at a later stage in conjunction with the main works for Zone 3B of the integrated basement.

Zone 2A

- (a) The basement under Zone 2A will be developed by the Government after completion of the XRL project. The basement together with the topside developments, including the CCP, some OACF and HOR sites, will be delivered in stages starting from 2022 subject to the programme of XRL. The proposed design and site investigation for Zone 2A of the integrated basement would need to commence by the fourth quarter of 2015 tentatively.

Zone 2B

- (b) The basement (including the respective section(s) of the main Avenue at the southern part and the road at basement level) under Zone 2B will be developed by the prospective developer(s) of HOR sites on the topside. It is necessary to carry out the proposed preliminary design and site investigation for Zone 2B of the integrated basement as mentioned in paragraph 3(b)(v) above for control and cost estimate purposes. The preliminary design will form the basis for the necessary design requirements of Zone 2B of the integrated basement to be undertaken by the prospective developer(s) of HOR sites on the topside. The apportionment of the cost between the Government and private developers would correspond approximately to the ratio of WKCDA and Government's facilities (including public infrastructure works) to HOR developments in terms of floor areas.

Zone 2C

- (c) While the WKCDA currently has no funding and concrete programme for the implementation of Batch 3 facilities (including Music Centre, Musical Theatre and Great Theatre) and the implementation of this portion of the integrated basement as well as the topside developments will be reviewed at a suitable juncture, it is necessary to carry out the proposed preliminary design and site investigation for Zone 2C of the integrated basement as mentioned in paragraph 3(b)(v) above for cost estimation purpose as well as to ensure compatibility with the phased implementation of Zones 2A and 2B of the integrated basement.

15. The proposed works in Zones 3A and 3B under this project will be compatible with subsequent developments in Zones 2A, 2B and 2C, and the design of Zones 2A, 2B and 2C will be consistent with the approved Development Plan for WKCD.

16. In view of the exceptionally high degree of integration amongst the various facilities in the integrated basement, the Government plans to entrust to WKCDA the first stage and part of the second stage of works in Zones 3A and 3B of the integrated basement (the proposed entrustment works), as mentioned in paragraph 3(a) and paragraph 3(b)(i), (ii), (iii) and the relevant part of (vi), to be carried out concurrently with the implementation of the M+ and Lyric Theatre Complex. It would be impractical for WKCDA to design and construct the M+ and Lyric Theatre Complex, while the Government separately undertakes the design and construction of the proposed entrustment works located within the same sites. Due to significant interfacing issues, a segregated approach will not only increase the costs and time required for the design and construction of the proposed entrustment works, but also give rise to interface problems and delay to the implementation programmes of the M+ and Lyric Theatre Complex. To avoid the above problems, we consider it necessary and cost-effective to entrust to WKCDA the design and construction of the proposed entrustment works which will need to be carried out in conjunction with the implementation of the M+ and Lyric Theatre Complex in a holistic manner.

17. Actual costs incurred in relation to the management, supervision, design and construction of the proposed entrustment works provided by WKCDA's consultants and contractors (i.e. third party costs) will be reimbursed to the WKCDA and are already budgeted under paragraphs 19(a), (b), (c), (d) and the relevant part of (f), (g) and (h) below. As the proposed entrustment works will be carried out in conjunction with WKCDA's consultancy agreements and works contracts for M+ and Lyric Theatre Complex respectively, we do not propose any in-house management cost to be payable to WKCDA in relation to these works.

18. As the Civil Engineering and Development Department does not have sufficient in-house resources, we propose to engage consultants to carry out the design and supervise the site investigation of essential basement structures and associated works for Zones 2A, 2B and 2C of the integrated basement viz. works mentioned in paragraph 3(b)(iv) and (v).

FINANCIAL IMPLICATIONS

19. We estimate the cost of the first and second stages of works to be \$2,919.5 million in MOD prices (please see paragraph 20 below), broken down as follows –

	\$ million
<i>First Stage of Design and Advance Works</i>	
(a) Construction of advance works for Zone 3A	221.7
(i) foundation for an underground road	30.7
(ii) foundation for the protection works for the existing AET	164.9
(iii) necessary environmental mitigation measures, and related monitoring and auditing works	2.8
(iv) consultants' fees for supervision of advance works for Zone 3A of the integrated basement	7.0
(v) remuneration of resident site staff	16.3
(b) Consultants' fees of design and tender for Zone 3B	29.7
<i>Second Stage of Design, Site Investigation and Construction Works</i>	
(c) Construction works for Zone 3A	534.4
(i) an underground road, associated ancillary works and essential enabling works	335.1
(ii) protection works for the existing AET	199.3

/ (d)

		\$ million	
(d)	Construction of foundation works for Zone 3B	1,081.8	
(e)	Site investigation works for Zones 2A, 2B and 2C	37.5	
(f)	Necessary environmental mitigation measures, and related monitoring and auditing works	21.5	
(g)	Consultants' fees for –	168.1	
	(i) supervision of works	59.5	
	(ii) design and tender for Zone 2A	47.3	
	(iii) preliminary design for Zones 2B and 2C	61.3	
(h)	Remuneration of resident site staff	131.7	
(i)	Contingency	222.7	
	Sub-total	2,449.1	(in September 2014 prices)
(j)	Provision for price adjustment	470.4	
	Total	2,919.5	(in MOD prices)

— A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 3.

20. Subject to funding approval, we will phase the expenditure as follows –

Year	\$ million (Sept 2014)	Price adjustment factor	\$ million (MOD)
2015 – 2016	102.2	1.05725	108.1
2016 – 2017	870.4	1.12069	975.4
2017 – 2018	930.0	1.18793	1,104.8
2018 – 2019	165.3	1.25920	208.1
2019 – 2020	177.9	1.33475	237.5
2020 – 2021	203.3	1.40483	285.6
	2,449.1		2,919.5

21. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output from 2015 to 2021.

22. We estimate the annual recurrent expenditure arising from the proposed works to be about \$8.5 million.

PUBLIC CONSULTATION

23. We consulted the Yau Tsim Mong District Council (YTMDC) on the first and second stages of works on 24 April 2014, 21 August 2014 and 26 February 2015. YTMDC generally supported the proposal.

24. We gazetted the proposed underground road in Zone 3A and Zone 3B of the integrated basement under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 13 February 2015. No objection was received during the statutory objection period. The authorization notice was gazetted on 30 April 2015.

25. We consulted the Joint Subcommittee on the first and second stages of works on 19 May 2015. Members had not raised objection to the proposal. In response to a Member's question, we confirm that Zones 3A and 3B of the integrated basement can be operated independently even if other zones of the basement could not be implemented eventually for one reason or another.

ENVIRONMENTAL IMPLICATIONS

26. The engineering feasibility study of the WKCD development is a designated project under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO), requiring an EIA report to be approved under the EIAO. The first and second stages of works forming part of the WKCD development cover an underground road serving WKCD which is a designated project under Schedule 2 of the EIAO, requiring an environmental permit for its construction and operation. In November 2013, the EIA report for the WKCD development (which includes the first and second stages of works) was approved with a condition under the EIAO, and an environmental permit was obtained for the construction and operation of the underground road. The EIA report has concluded that the environmental impact of the first and second stages of works can be controlled to within the criteria under the EIAO and the Technical Memorandum on EIA process. We shall implement the mitigation measures as recommended in the approved EIA report. The mitigation measures recommended for the construction phase mainly include adoption of quieter equipment and movable noise barriers or noise insulating fabric to minimize construction noise impact, and regular watering of the site and provision of wheel-washing facilities for dust control. We have allowed \$24.3 million (in September 2014 prices) in the project estimate for implementing the necessary environmental mitigation measures, monitoring and auditing works.

27. At the planning and design stages, we have considered the design level and construction method of the first and second stages of works to reduce the generation of construction waste where possible. In addition, we will require the contractors to reuse inert construction waste (e.g. excavated soil and broken concrete) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities⁹. We will encourage the contractors to maximise the use of recycled or recyclable inert construction waste and the use of non-timber formwork to further reduce the generation of construction waste.

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⁹ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

28. At the construction stage, we will require the contractors to submit plans for approval setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plans. We will require the contractors to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

29. We estimate that the first and second stages of works will generate in total 158 200 tonnes of construction waste. Of these, we will reuse 101 380 tonnes (64%) of inert construction waste on site and 55 620 tonnes (35%) of inert construction waste on other construction sites. We will dispose of the remaining 1 200 tonnes (1%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at landfill sites is estimated to be about \$0.15 million for this project (based on a unit charge rate of \$125 per tonne for disposal at Landfills as stipulated in the Waste Disposal (Charge for Disposal of Construction Waste) Regulation).

HERITAGE IMPLICATIONS

30. The first and second stages of works will not affect any heritage sites, i.e. all declared monuments, proposed monuments, graded historic sites or buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

31. The first and second stages of works do not require any private land acquisition.

BACKGROUND INFORMATION

32. The WKCD development is one of the ten major infrastructure projects included in the Chief Executive's 2007-08 Policy Address for promoting the long-term development of arts and culture, and supporting Hong Kong as a creative economy and Asia's World City.

33. In January 2013, FC approved the upgrading of **753CL** “Infrastructure Works for West Kowloon Cultural District, phase 1 – design and site investigation” to Category A at an estimated cost of \$478 million in MOD prices. The design and site investigation of government infrastructure works in Zones 3A and 3B of the integrated basement (related to the underground road and associated works) form part of the works entrusted to WKCD A under **753CL**, and are proceeding in stages to suit the phased implementation of the integrated basement.

34. We upgraded **763CL** to Category B on 28 June 2013.

35. In March 2014, we created a Category D item to fund the design of the advance works and site investigation works for Zone 3B of the integrated basement at an estimated cost of \$27.3 million in MOD prices under **Subhead 7100CX** “New towns and urban area works, studies and investigations for items in Category D of the Public Works Programme”. The works under this Category D item were entrusted to WKCD A based on the same reasons as stated in paragraph 16 above, and are substantially completed.

36. The first and second stages of works described in paragraphs 3(a)(i), 3(b)(i), 3(b)(ii) and 3(b)(iii) above will involve felling of 36 trees within the project site. All trees to be felled are not important trees¹⁰. We will incorporate planting proposals as part of the project, including 85 trees for compensatory planting. The proposed design and site investigation described in paragraphs 3(a)(ii), 3(b)(iv) and 3(b)(v) above will not directly involve any tree removal or planting proposals. We will take into consideration the need for tree preservation during the planning and design stages of the project. We will also incorporate tree planting proposals, where possible, in the construction phase in the future.

/ 37.

¹⁰ “Important trees” refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one of more of the following criteria –

- (a) trees of 100 years or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or heritage monument and trees in memory of important persons or events;
- (c) trees of previous or rare species;
- (d) trees of outstanding form (taking account of overall tree size, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

37. We estimate that the first and second stages of works will create about 460 jobs (380 for labourers and another 80 for professional/technical staff) providing a total employment of 15 700 man-months.

Home Affairs Bureau
June 2015

LEGEND: 圖例:

- Batch 1 WKCD's Facilities
第一批管理局設施
- Batch 2 WKCD's Facilities
第二批管理局設施
- Batch 3 WKCD's Facilities
第三批管理局設施
- Hotel, Office and Residential Development and Other Arts and Cultural Facilities
酒店、辦公室及住宅發展及其他文化藝術設施
- Underground road
地下行車路
- Airport Express Tunnels
機場快綫隧道
- Zone of Integrated Basement
綜合地庫分區
- () Target Completion Dates
預計落成日期

NOTES: 註釋:

1. GENERAL ARRANGEMENT AND DEMARCATION BETWEEN DIFFERENT ZONES OF INTEGRATED BASEMENT SUBJECT TO DETAILED DESIGN.
綜合地庫的布局及分區分界有待詳細設計確定

項目名稱 project title

763CL(PART) - INTEGRATED BASEMENT FOR WEST KOWLOON CULTURAL DISTRICT
FIRST AND SECOND STAGES OF DESIGN, SITE INVESTIGATION AND CONSTRUCTION WORKS

763CL(部分) - 西九文化區綜合地庫
-首階段及第二階段的設計、工地勘測及建造工程

圖則名稱 drawing title

ZONING PLAN OF THE INTEGRATED BASEMENT AND THE PROPOSED WORKS

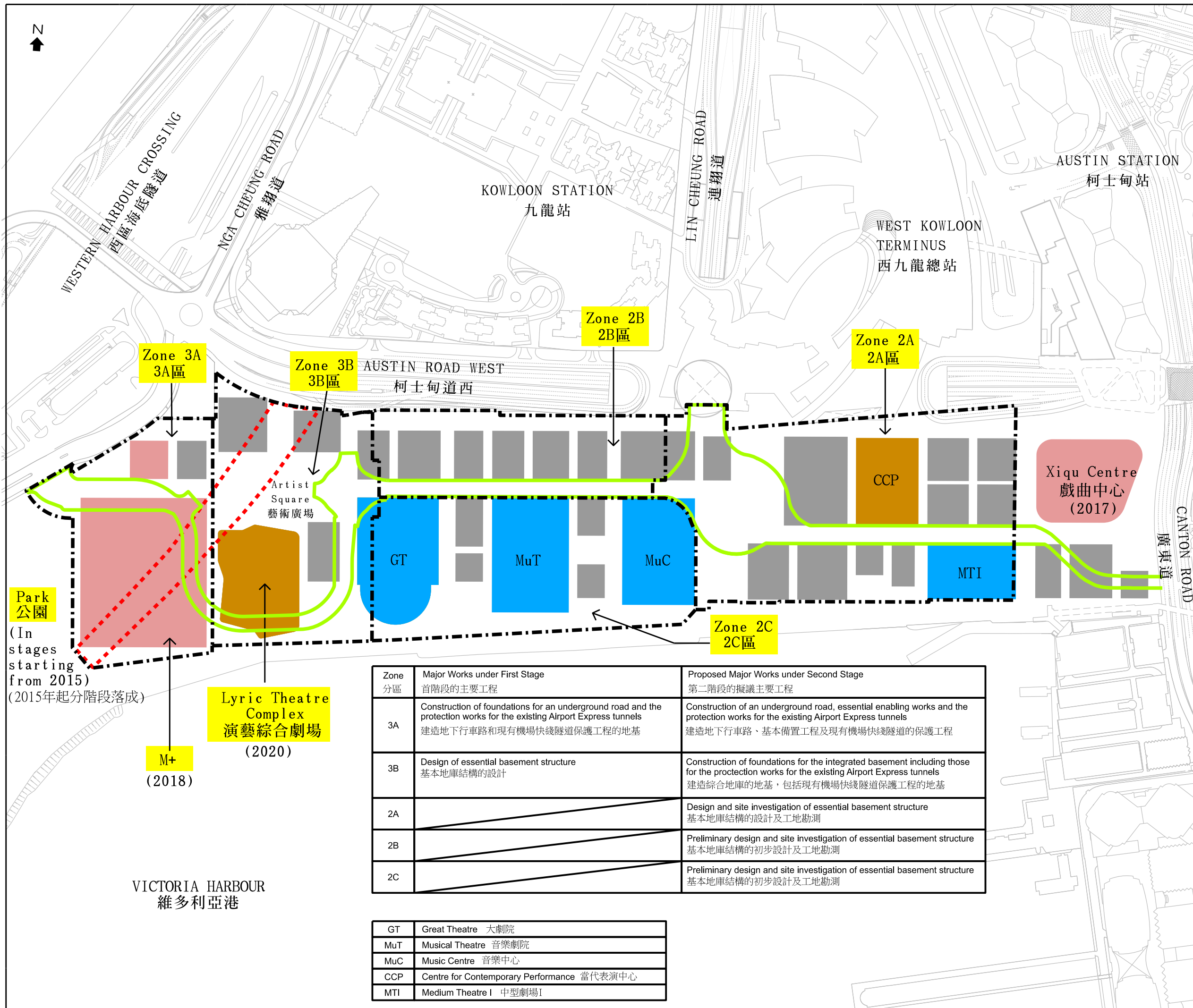
綜合地庫發展分區圖及擬議工程

圖則編號 drawing no.

KZ921

比例 scale

Not to scale
不按比例



Zone 分區	Major Works under First Stage 首階段的主要工程	Proposed Major Works under Second Stage 第二階段的擬議主要工程
3A	Construction of foundations for an underground road and the protection works for the existing Airport Express tunnels 建造地下行車路和現有機場快綫隧道保護工程的地基	Construction of an underground road, essential enabling works and the protection works for the existing Airport Express tunnels 建造地下行車路、基本備置工程及現有機場快綫隧道的保護工程
3B	Design of essential basement structure 基本地庫結構的設計	Construction of foundations for the integrated basement including those for the protection works for the existing Airport Express tunnels 建造綜合地庫的地基，包括現有機場快綫隧道保護工程的地基
2A		Design and site investigation of essential basement structure 基本地庫結構的設計及工地勘測
2B		Preliminary design and site investigation of essential basement structure 基本地庫結構的初步設計及工地勘測
2C		Preliminary design and site investigation of essential basement structure 基本地庫結構的初步設計及工地勘測

GT	Great Theatre 大劇院
MuT	Musical Theatre 音樂劇院
MuC	Music Centre 音樂中心
CCP	Centre for Contemporary Performance 當代表演中心
MTI	Medium Theatre I 中型劇場I









Park 公園
(In stages starting from 2015)
(2015年起分階段落成)

Lyric Theatre Complex
演藝綜合劇場
(2020)





M+
(2018)

VICTORIA HARBOUR
維多利亞港

LEGEND: 圖例:

-  PROPOSED FOOTPATH AND TRAFFIC ISLAND
擬建行人路及安全島
-  PROPOSED CARRIAGEWAY
擬建行車道
-  PROPOSED ASSOCIATED PLANT ROOMS AND OTHER ANCILLARY FACILITIES
擬建相關的機房及其他附屬設施
-  PROPOSED ASSOCIATED MEANS OF ESCAPE / MEANS OF ACCESS FOR FIREFIGHTING AND RESCUE
擬建相關的走火通道/消防救援通道
-  PROPOSED FOUNDATION WORKS IN ZONE 3B
3B區的擬建地基工程
-  AIRPORT EXPRESS TUNNELS (AET)
機場快綫隧道
-  PROPOSED PROTECTION WORKS FOR AET
擬議機場快綫隧道保護工程
-  PICK-UP / DROP-OFF AREA
上落客區

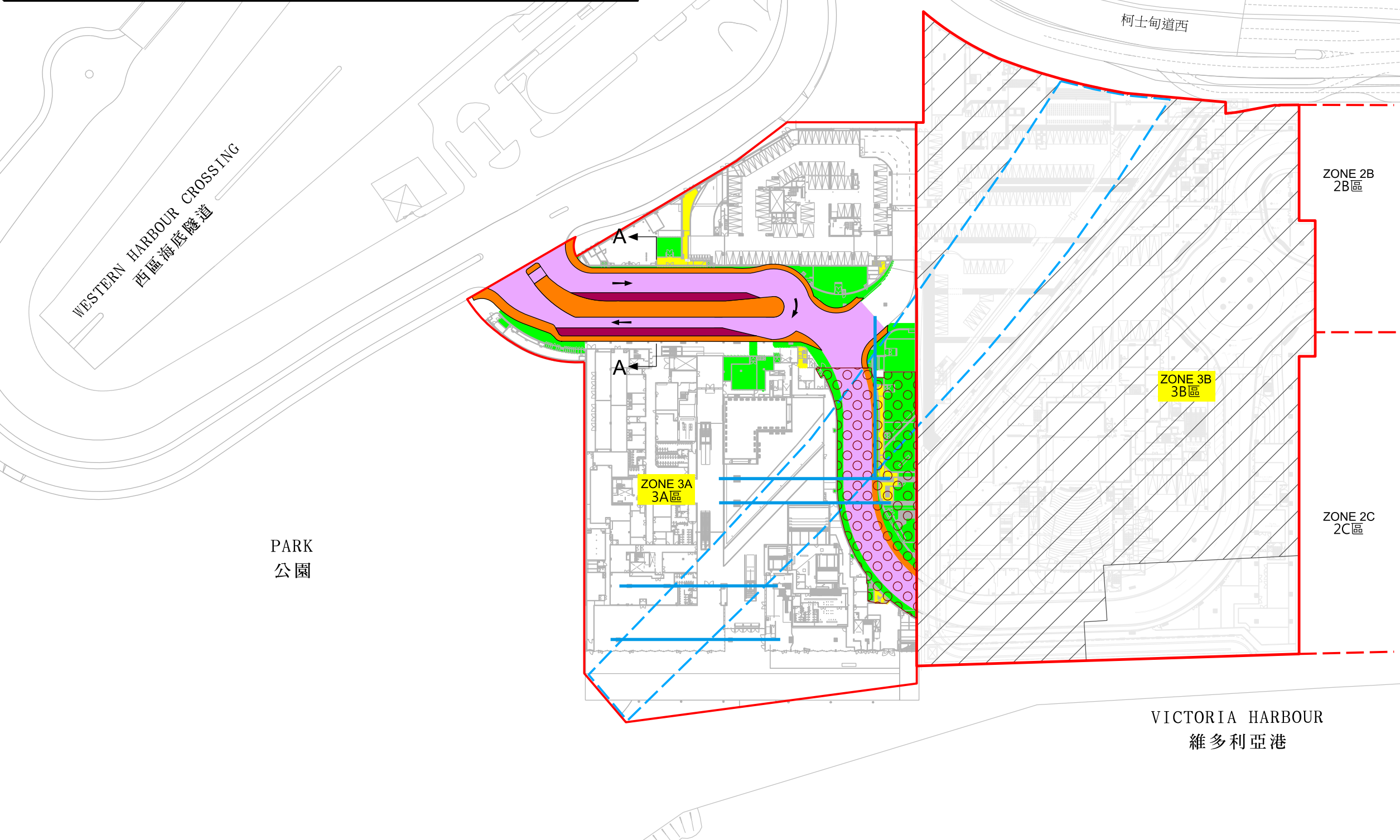
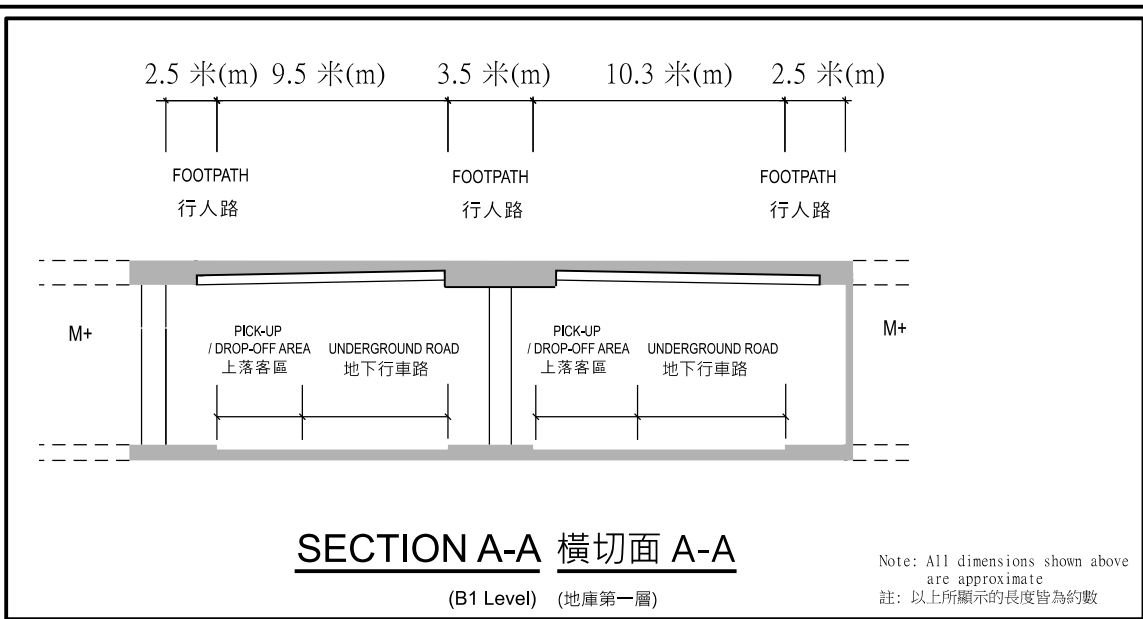
ESSENTIAL ENABLING WORKS OF THE FACILITIES BELOW
以下設施的基本備置工程

-  PROPOSED FOOTPATH AND TRAFFIC ISLAND
擬建行人路及安全島
-  PROPOSED CARRIAGEWAY
擬建行車道
-  PROPOSED ASSOCIATED PLANT ROOMS AND OTHER ANCILLARY FACILITIES
擬建相關的機房及其他附屬設施
-  PROPOSED ASSOCIATED MEANS OF ESCAPE / MEANS OF ACCESS FOR FIREFIGHTING AND RESCUE
擬建相關的走火通道/消防救援通道

項目名稱 project title
763CL(PART) - INTEGRATED BASEMENT FOR WEST KOWLOON CULTURAL DISTRICT - FIRST AND SECOND STAGES OF DESIGN, SITE INVESTIGATION AND CONSTRUCTION WORKS
763CL(部分) - 西九文化區綜合地庫 - 首階段及第二階段的设计、工地勘测及建造工程

圖則名稱 drawing title
PROPOSED SECOND STAGE CONSTRUCTION WORKS (B1 LEVEL)
擬議第二階段的建造工程(地庫第一層)

圖則編號 drawing no. KZ922	比例 scale Not to scale 不按比例
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Funding applications for Integrated Basement and Associated Public Infrastructure Works (PIW) in coming years up to 2017

	WKCD facilities / developments to be affected	Rough cost estimates of funding to be sought (in MOD prices)	Tentative schedule of funding applications
		Integrated Basement and associated PIW	
<p>(a) First stage of design and advance works mainly comprising –</p> <ul style="list-style-type: none"> (i) construction of the foundations for both an underground road and the protection works for the existing Airport Express tunnels in Zone 3A of the integrated basement; and (ii) design of essential basement structure and associated works for Zone 3B of the integrated basement. 	<p>M+ (at Zone 3A), Lyric Theatre Complex, Artist Square and Hotel/Office/ Residential (HOR) sites including Retail/Dining/ Entertainment (RDE) facilities (at Zone 3B) and HOR sites including RDE facilities and arts and cultural facilities of WKCDA (at Zones 2A and 2B)</p>	<p>About \$2.9 billion</p>	<p>Mid 2015 (the present funding application)</p>
<p>(b) Second stage of design, site investigation (SI) and construction works mainly comprising –</p> <ul style="list-style-type: none"> (i) construction of an underground road, associated ancillary works and essential enabling works in Zone 3A of the integrated basement*; (ii) protection works for the existing Airport Express tunnels in Zone 3A of the integrated basement; (iii) construction of the foundations for Zone 3B of the integrated basement including those for the protection works for the existing Airport Express tunnels; 			

Funding applications for Integrated Basement and Associated Public Infrastructure Works (PIW) in coming years up to 2017

	WKCD facilities / developments to be affected	Rough cost estimates of funding to be sought (in MOD prices)	Tentative schedule of funding applications
		Integrated Basement and associated PIW	
(iv) design and SI of essential basement structure and associated works for Zone 2A of the integrated basement [^] ; and (v) preliminary design and SI of essential basement structures and associated works for Zones 2B and 2C of the integrated basement			
(c) Construction of basement structures, underground road and associated PIW in Zone 3B and remaining section of the underground road in Zone 3A.	Lyric Theatre Complex, Artist Square (at Zone 3B)	About \$3 billion	2016/17
(d) Construction of basement structures, underground road and associated PIW in Zone 2B	HOR sites including RDE facilities and arts and cultural facilities of WKCDA (at Zone 2B)	About \$4 billion	2016/17

* *As no objection was received during the statutory objection period, it is proposed to include the PIW in Zone 3A under the scope of second stage works of this funding application.*

[^] *The basement under Zone 2A will be developed by the Government after completion of the XRL project. Together with the topside development, the basement under Zone 2A will be delivered in stages starting from 2022 subject to the programme of XRL.*

763CL (Part) – Integrated Basement for West Kowloon Cultural District**Breakdown of the estimates for consultants' fees (in September 2014 prices)**

		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fees (\$ million)	
(a) <u>Construction of advance works for Zone 3A of the integrated basement</u>						
(i)	Consultants' fee for supervision of advance works for Zone 3A of the integrated basement (Note 2)	Professional	42	38	2.0	6.0
		Technical	20	14	2.0	1.0
(ii)	Remuneration of resident site staff (RSS) (Note 3)	Professional	85	38	1.6	9.7
		Technical	170	14	1.6	6.6
Sub-total					23.3	
(b) <u>Consultants' fees of design for Zone 3B of the integrated basement</u>						
(i)	Design and tender (Note 2)	Professional	130	38	2.0	18.5
		Technical	230	14	2.0	11.2
Sub-total					29.7	
(c) <u>Construction Works for Zone 3A, foundation works for Zone 3B and site investigation works for Zones 2A, 2B and 2C of the integrated basement</u>						
(i)	Consultants' fee for supervision of construction works for Zone 3A, foundation works for Zone 3B and site investigation works for Zones 2A, 2B and 2C of the integrated basement (Note 2)	Professional	359	38	2.0	51.3
		Technical	169	14	2.0	8.2
(ii)	Remuneration of RSS (Note 3)	Professional	687	38	1.6	78.5
		Technical	1365	14	1.6	53.2
Sub-total					191.2	

(d) Consultants' fees of design for Zone 2A of the integrated basement

(i) Design and tender ^(Note 2)	Professional	205	38	2.0	29.3
	Technical	370	14	2.0	18.0
Sub-total					47.3

(e) Consultants' fees of preliminary design for Zones 2B and 2C of the integrated basement

(i) Preliminary design ^(Note 2)	Professional	265	38	2.0	37.8
	Technical	482	14	2.0	23.5
					61.3
Total					352.8

* MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff cost including the consultants' overheads and profit for staff employed in the consultants' offices. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants (as at now, MPS salary point 38 = \$71,385 per month and MPS salary point 14 = \$24,380 per month).
2. The actual man-months and fees will only be known after the consultants have been selected.
3. The actual man-months and fees will only be known after the completion of the construction works.